

What is claimed is:

1. A molded article having two parts adjoining with each other, one of said two parts being required to have a higher mechanical strength than the other part, wherein said one part is formed of a metal matrix composite material, and said other part is formed of a metallic material, said metal matrix composite material and said metallic material being united together at a boundary between said two parts.

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2. The molded article according to claim 1, wherein said molded article is comprised of a brake disc of a disc brake, and said one part of the molded article is an annular disc portion of said brake disc including a pad rubbing area provided for frictional engagement with a brake pad of the disc brake.

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3. A method of forming a molded article on an injection molding apparatus using a metal matrix composite material, the injection molding apparatus including a molding die having a die cavity defined therein, an injection cylinder communicating with the die cavity via a gate formed in the molding die, and a piston slidably disposed inside the injection cylinder for reciprocating movement toward and away from the gate of the molding die, said method comprising the steps of:

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supplying a desired quantity of metallic material in a

semi-solidified state and a desired quantity of metal matrix composite material in a molten state into the injection cylinder in such a manner that said semi-solidified metallic material is situated on a piston side adjacent to the piston
5 and said molten metal matrix composite material is situated on a gate side adjacent to the gate; and

subsequently advancing the piston toward the gate to force said molten metal matrix composite material and said semi-solidified metallic material into the die cavity in the
10 order named, whereby the metal matrix composite and the metallic material are formed into a shape complementary in contour to the die cavity.

4. The method according to claim 3, for forming a
15 molded article having two adjoining parts with one part having a higher mechanical strength than the other part, wherein said desired quantity of metal matrix composite material is substantially equal to a cubic volume of said one part of the molded article, and said desired quantity of metallic material
20 is substantially equal to the sum of a cubic volume of the other part of the molded article and a cubic capacity of the gate.

5. The molded article of the method of claim 3.

25 6. The molded article of the method of claim 4.